

REMARKS

Claims 39, 40, 43, 47, 48, 53, 55, 56, 58 and 59 have been amended. Claims 1-38 and 46 have been canceled. No new matter has been added. Thus, claims 39-45 and 47-59 remain pending in the present application. In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

Claims 39-51 and 53-59 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Mahadevan-Jansen (U.S. Patent. No. 5,842,995) (hereinafter “Mahadevan”) in view of Anidjar (Publication entitled “Ultraviolet Laser-Induced Autofluorescence Distinction Between Malignant and Normal Urothelial Cells and Tissues” to Anidjar et al.).

Amended claim 39 recites a tissue spectroscopy device comprising “*a substrate having a light emitting portion at a distal end of a first surface thereof, the light emitting portion providing only ultraviolet (UV) light to tissue, and a light detector disposed at a proximal end of the first surface*” in combination with “an interventional device for delivering the substrate to a target position adjacent to a target portion of tissue within a living body.”

Mahadevan fails to teach or suggest “*a substrate having a light emitting portion at a distal end of a first surface thereof, the light emitting portion providing only ultraviolet (UV) light to tissue, and a light detector disposed at a proximal end of the first surface,*” and “an interventional device for delivering the substrate to a target position adjacent to a target portion of tissue within a living body,” as recited in claim 39. Rather, Mahadevan is directed to the application of light via an electromagnetic radiation source such as a laser situated externally of the body and the probe. (See Mahadevan, col. 7, li. 47 - col. 8, li. 9; Figs. 2 - 3). A 200 μ m excitation fiber extends from a proximal connection with the laser and into the probe, which is then inserted to a target tissue site in the body. A plurality of 100 μ m collection fibers are also provided, proximal ends thereof being connected to a spectrograph and distal ends being positioned through the probe substantially parallel to the excitation fiber. (Id. at col. 7, li. 18 - 22, 54 - 64; Figs. 2 - 3). In support of the rejection, the Examiner has analogized the dielectric coating of the fibers of Mahadevan to the substrate of claim 1. (See 8/28/09 Office Action, pp. 2,

4). However, it is respectfully submitted that the excitation fiber and collection fibers are not disposed on a first surface of a first substrate. Rather, the excitation fiber and collections fibers are separated from one another and have separate dielectric coatings to enable it to separate light provided by the excitation fiber from light detected by the collection fibers. Specifically, it is well known in the art that if two optical fibers are provided with a common coating, the light provided through one of the fibers will permeate into the second fiber obscuring the otherwise separated light paths extending through each of the fibers. It is therefore respectfully submitted that the mere fact that the coating of each of the fibers is formed of a dielectric material is insufficient to overcome the limitation of the “*a substrate having a light emitting portion at a distal end of a first surface thereof ... and a light detector disposed at a proximal end of the first surface,*” as recited in claim 39. Rather, there is no one surface of any substrate in the device of Mahadevan that comprises both a light emitting portion and a light detector disposed thereupon. It is submitted that claim 39 is allowable over Mahadevan for at least this reason.

Mahadevan also fails to teach or suggest a device wherein a first one of the fibers is disposed on a distal end of any element while another one of the fibers is disposed on a proximal end of the element. Specifically, the excitation fiber and the collection fibers are inserted through the probe and are configured to lie substantially parallel to and adjacent to one another in an operative configuration. Furthermore, since Mahadevan employs the use of optical fibers, such an embodiment cannot be assumed since the optical fibers must extend unobstructed through the entire length of the probe to a common distal location adjacent a target tissue site. If the excitation fiber was to be positioned distally of the collection fibers, one or both of the fibers would not be able to function as needed since both fibers must extend completely through the probe in order to illuminate or collect an image from the target tissue site. It is therefore respectfully submitted that the excitation fiber and collection fibers cannot be positioned proximally or distally of one another without being detrimental to the device of Mahadevan and that claim 39 is allowable over Mahadevan for at least this additional reason.

It is further submitted that Anidjar fails to overcome this deficiency in Mahadevan. Specifically, the device of Anidjar also employs the use of excitation and detection optical fibers which must extend substantially parallel to one another to a common distal end adjacent a target

site. The fibers of Anidjar are therefore also incapable of meeting the limitation of “a *substrate having a light emitting portion at a distal end of a first surface thereof*, the light emitting portion providing only ultraviolet (UV) light to tissue, and a *light detector disposed at a proximal end of the first surface*,” as recited in claim 39.

It is therefore respectfully submitted that Mahadevan and Anidjar, taken either alone or in combination, fail to teach or suggest a tissue spectroscopy device comprising a *substrate having a light emitting portion at a distal end of a first surface thereof*, the light emitting portion providing only ultraviolet (UV) light to tissue, and a *light detector disposed at a proximal end of the first surface*,” as recited in claim 39. Therefore, Applicant submits that claim 39 is allowable for at least the reasons previously mentioned. Because claims 40-45 and 47-59 depend from and, therefore, include the limitations of claim 39, it is respectfully submitted that these claims are also allowable.

Amended claim 55 recites limitations substantially similar to those of the amended claim 39, including “(a) delivering to a desired position adjacent to target tissue within a living body a *substrate comprising a light emitting portion at a distal end of a first surface thereof and a light detector disposed on a proximal end of the first surface*; (b) transmitting only ultraviolet (UV) light from said light emitting portion to illuminate said target tissue; and (c) using said light detector to measure an optical property of light reflected from the target tissue.” Thus, it is respectfully submitted that claim 55 is allowable for the same reasons noted above in regard to claim 39. Because claims 56-58 depend from and, therefore, include the limitations of claim 55, it is respectfully submitted that these claims are also allowable.

Claim 52 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Mahadevan in view of Anidjar in further view of U.S. Patent No. 5,503,559 to Vari.

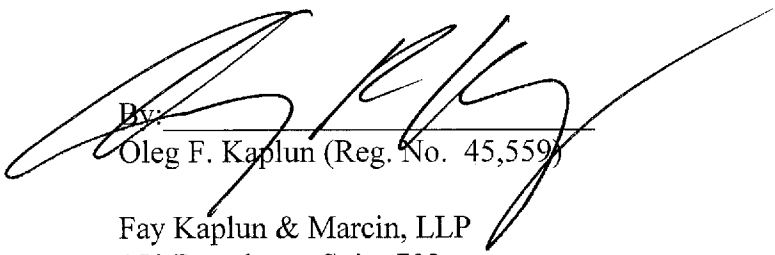
Claim 52 depends from and therefore includes all of the limitations of claim 39. As noted above, Mahadevan and Anidjar, taken alone or in combination, fail to teach or suggest the limitations of claim 39. Vari fails to cure this deficiency. It is therefore respectfully submitted that claim 39 and its dependent claim 52 are allowable over Mahadevan, Anidjar and Vari, taken

alone or in any combination.

In light of the foregoing, Applicant respectfully submits that all of the presently pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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By: _____
Oleg F. Kaplun (Reg. No. 45,559)

Fay Kaplun & Marcin, LLP
150 Broadway, Suite 702
New York, New York 10038
Tel: (212) 212-619-6000
Fax: (212) 619-0276